

Ealing Broadway Interchange – Options and Issues

Introduction

Ealing Broadway station can be a nightmare, with chronic overcrowding at peak times. You have to negotiate crowded stairs to get to the ticket hall and then many more stairs to get to the platforms. The pedestrian routes to the station are awkward or congested. There are no cycle facilities at the station itself and the nearest bus stops are spread out inconveniently around, and clutter up, Haven Green. The taxi rank can only be reached by crossing two roads, and set down/pick up points are totally inadequate.

The SEC Vision calls for an integrated transport interchange at Ealing Broadway, with a clear preference for this to take the form of a bus station above the railway station. The SEC Vision was developed nearly a year ago now and further ideas and information have come forward in the meantime. This paper attempts to collate the key options and issues going forward. This has become pressing with the realisation that a juggernaut in the form of Crossrail is coming down the tracks.

SEC's aims

SEC has a number of aims for the centre of Ealing. These aims will often interact with each other and any proposals put forward could meet one aim at the expense of another. Compromises may need to be agreed. The aims in the area of Ealing Broadway Station are summarised below.

Station capacity

The Crossrail rebuild of the station needs to be able to cope with passenger growth for many years to come. We mustn't get back into the situation where the station is in danger of being closed on safety grounds because parts of it can't cope with the number of passengers.

Transport Interchange

Transport for London (TfL) describes an interchange as a transport hub where people can move easily and safely between different modes of transport. The modes of transport that could meet at Ealing Broadway are Underground, National Rail, buses, taxis, cars and cycles. The Crossrail rebuild of Ealing Broadway Station will largely deal with Underground to National Rail transfers, although

there are some issues about the convenience of this. The challenge is to deal with the poor situation for all other forms of transfer.

Haven Green open space

Haven Green is a much loved and used piece of open space in the centre of Ealing, and indeed the only piece of open space for some distance to the north. It needs to be preserved, if not enhanced, in both size and appearance.

Design and Conservation Areas

The centre of Ealing, with the exception of the railway areas, falls within either the Haven Green or the Ealing Town Centre conservation areas. Any new development needs to either preserve or enhance the quality of these areas.

Good pedestrian and cycle links

There needs to be good pedestrian and cycle access to the shops, offices etc. in the centre of Ealing as well as to the public transport facilities. The current arrangement has some horrible pinch points for pedestrians and few concessions to cyclists.

Overall SEC aims for a transport interchange at Ealing Broadway

These are outlined in the following statement:-

SEC believes that the station is a major gateway to Ealing, and should be part of the commercial and retail offering of the town centre. The opportunity provided by the need to rebuild for Crossrail should be taken to redevelop the whole site, including the realisation of longstanding ambitions for an integrated transport interchange. By this we mean:-

- A set of facilities to enable transfer between trains, underground, buses, bicycles, taxis and cars and mini-cabs (for drop-off and pickup).
- Covered and step-free transfer between all forms of transport, without any road to cross.
- Covered waiting areas for all forms of transport, with travel information, convenience shops and public toilets.
- Short and convenient walking routes between all the forms of transport.
- Convenient access point(s) for pedestrians from surrounding areas.
- Ample covered cycle storage facilities.
- Enough capacity to cater for at least 15 years growth in passenger numbers following completion.
- Staff facilities for underground, bus and taxi drivers.

At least part of the interchange will inevitably be located on the station site. Other parts could be above or to some side of it, although they should not be on Haven Green. The whole should be of an architecturally high quality and pleasing design that enhances the Conservation Area. A wider redevelopment scheme of the whole site including Villiers House should be a regeneration priority.

Crossrail

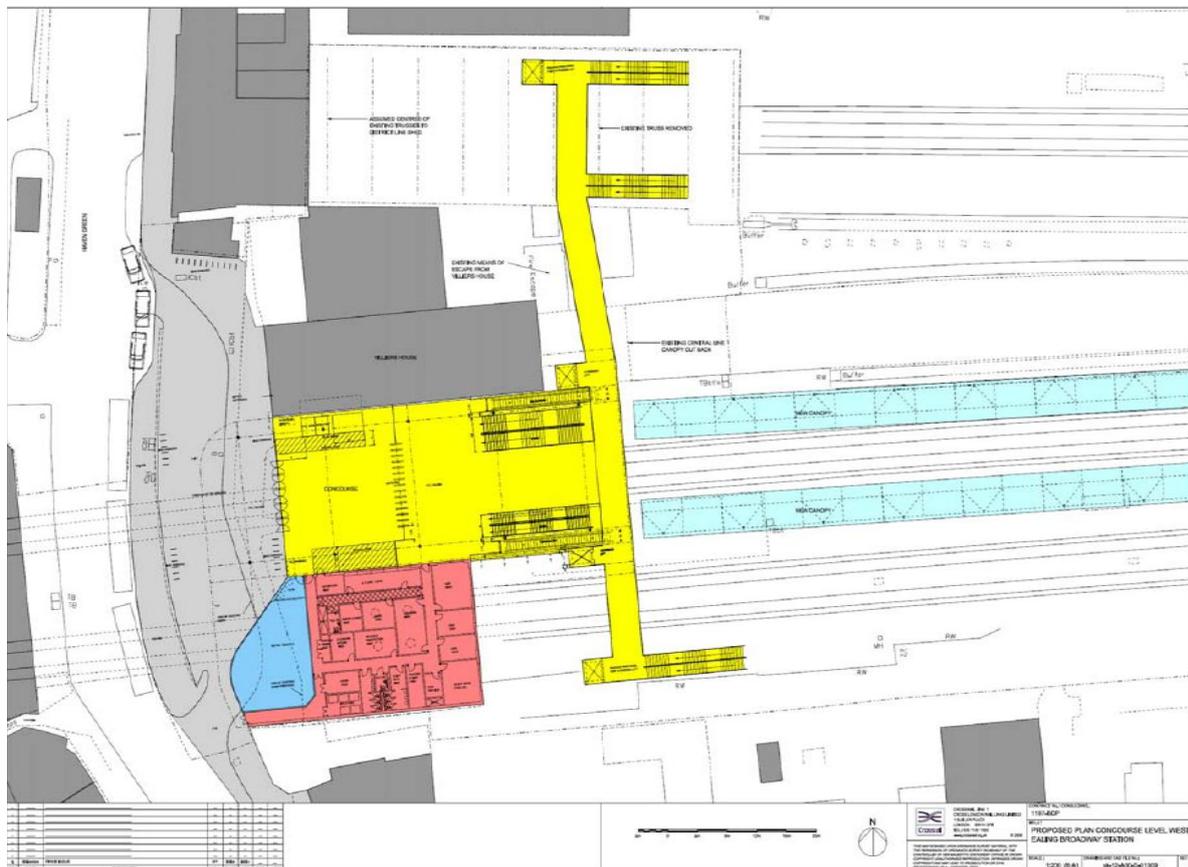
Ealing has long regarded [Crossrail](#) as just a “good thing” with nothing but benefits once the construction period is out of the way. It probably didn’t pay anything like enough attention to the passage of the Crossrail Bill, both to maximise the benefits of the scheme and to minimise any longer term issues. This “lack of attention” criticism can be levelled at Council officers, Councillors, Ealing

Broadway residents' association and local residents. It shows up in the lack of any Crossrail commitments (the equivalent of planning conditions) in relation to Ealing Broadway. By comparison, Woolwich achieved a new station and Hanwell achieved a commitment not to do anything to preclude the opening of the southern entrance to the station.

The Crossrail Bill took the form of a mammoth planning application. Parliament conducted its own information rounds and consultations between 2003 and 2007, with details advertised in the Ealing Gazette as they would have been for a local planning application. The government agreed funding of the scheme in 2007 and the Bill achieved Royal Assent in July 2008. This provided the equivalent of outline planning permission for all the developments that constitute part of the Crossrail programme. The detailed plans are still subject to formal consultation with local councils (like Ealing). However, local councils have no powers to challenge or change the fundamentals of the scheme.

Ealing Broadway station changes

Ealing Broadway station will be almost completely rebuilt for Crossrail. The work is likely to take place between early 2013 and late 2016. The design is expected to be substantially as shown below:-



This includes longer mainline platforms for the 10-carriage Crossrail trains, a new ticket hall at street level, an overbridge connecting all mainline and underground platforms, escalators to the busiest platforms and lifts to all platforms. However, the current design will simply remove all the shops on the station forecourt and may not have space for shops like W H Smith in the station foyer.

The Crossrail Act doesn't preclude a more extensive transport interchange and building development at Ealing Broadway station. A larger planning application could still be submitted so

long as it incorporated all the features needed for Crossrail. Such a planning application would have to go through normal Council consultations and the Crossrail parts of the scheme would have to be implemented in time for the expected start of Crossrail service.

However, Crossrail Ltd. (the company nominated to implement the scheme) will now be on a mission. Their job is to implement Crossrail on time and on budget. They have essentially got all the permissions they need to do this. They don't need to pay much attention to anything that will divert them from their aim unless their political masters (Mayor of London) and paymasters (UK Government and Mayor of London) direct them to do otherwise.

There is always the option of implementing other aspects of an integrated transport interchange in a way that doesn't conflict with the Crossrail work, or that takes place either before or after the Crossrail parts are built. However, this is likely to be at a higher overall cost and to produce a less integrated design than if it was all planned and built at the same time.

Passenger Numbers

The number of people entering and leaving Ealing Broadway station has increased substantially in recent years, as shown in the table below.

Year	Total passengers per annum (entry and exit)	Mon – Fri average in the AM peak from 7am to 10am
2003	12,818,000	11,396
2004	13,353,000	12,009
2005	13,508,000	12,279
2006	14,941,000	13,667
2007	17,528,000	16,135
2008	17,860,000	15,839

These figures are taken from Transport for London [statistics](#).

Passengers using the station in peak periods certainly noticed that things were getting worse. However, it doesn't appear that anybody in a transport planning function picked up on the issue, quantified it and amended any plans accordingly. The reasons for the increase don't seem to be understood, although the pattern is repeated in other parts of outer London. The suspicion falls on the rising population and prosperity of London, plus traffic congestion forcing people onto public transport. An additional factor may be the policy under the previous London Plan to increase employment in central London at the expense of growth in outlying areas such as Ealing, where concentration was and still is on increasing housing.

There no longer seems to be any sound basis for predicting future growth rates. The Crossrail Bill contained an [estimate](#) (Environmental Statement, Volume 08c, R W 5 Ealing Broadway Stn, para 22.47) of future passenger numbers at Ealing Broadway. It reckoned that Crossrail would increase the numbers of people entering and leaving the station in the morning peak by about 30%, to a total of 15,950. As can be seen from the table above, even without Crossrail these numbers were exceeded in 2007. These high growth rates clearly can't continue indefinitely and indeed the recession is reported to have caused a recent reduction in numbers. However, just a few years of resumed growth would exceed the capacity of the new station.

There are no recent figures (that I am aware of) for passengers transferring between different modes of transport at Ealing Broadway. Some figures from 1996 showed 21% of those entering the station as coming from buses and 14% of those using the station transferring between trains there.

Options for a Bus Station

A key issue for an integrated transport interchange is where you put the bus station. TfL commissioned a report on this from Halcrow Ltd. This report was produced in early 2006 and provided the basis for much of the subsequent thinking. The key options are described below. The focus has always been on the buses that go round Haven Green. The 207/427/607 buses that simply go along the Uxbridge Road have not been “integrated” in any way. Nobody has come up with a practical and beneficial solution to that problem.

Sizing of the Bus Station

The basic options considered all have the same number of bus stops/stands as currently exist around Haven Green. The scope for expansion is listed under each option.

The number of bus passengers can be expected to grow. This will come from natural growth (as shown by the increase in the number of people using the station), from the introduction of Crossrail that is expected to increase usage of the station by 20%, and from existing and future office, residential and retail developments around the town centre. There are a number of ways of coping with this growth, all of which have issues associated with them.

Increasing the size of the buses

Many are already double-deckers as big as they get. All the single-deckers have well over half the capacity of a double-decker. There may be difficulties squeezing larger buses through some of the narrower streets on the bus routes. Larger capacities will mean that larger passenger waiting areas are required.

Increasing the frequency of the buses

This increases the number of bus stands required for the buses that terminate at Ealing Broadway. Bus stands are required to regulate the service. Extra buses will also increase congestion, especially around the bus station.

Reduce the number of buses that terminate at Ealing Broadway

This would reduce the need for bus stands and enable some bus stops to be put in their place. This would be done in conjunction with other changes like additional bus routes. There would be some knock-on effects on bus station design, as bus stands need no pedestrian access or waiting areas. There would also need to be extra passenger waiting areas as the bus times would become less reliable and maximum queue lengths would increase. However, the biggest problem is that nobody has yet come up with a practical scheme to terminate the buses somewhere else.

Existing Bus Arrangement

Whilst not a “considered option”, this provides a baseline for comparing other schemes. The bus stops and stands are spread along the eastern and diagonal roads of Haven Green and in front of the forecourt of the station. The advantages and disadvantages of this arrangement are listed below:-

Advantages

- It is there, so no expenditure is required to create it.

- The buses are well spread out, so don't provide much of a visual barrier and provide decent pedestrian permeability.

Disadvantages

- Those passengers simply wanting to change between buses have a longer walk than would be needed if the bus stops were nearer together.
- There is no room for expansion as all the available space on the roads has been taken with bus stops and bus stands.
- There isn't enough space for waiting passengers at peak times and they block the pavements.
- The bus shelters aren't big enough for many of the passengers at peak times and they get wet when it rains.
- There aren't any rest facilities or toilets for bus drivers, who have been known to relieve themselves in inappropriate places.
- Taxis can only be reached by crossing at least one road.
- The cycle parking facilities are inadequate (not enough and not covered).
- The drop-off and pick-up arrangements are inconvenient and inadequate.

On the eastern side of Haven Green

The Halcrow report had an option to create a bus station by slabbing over the southern side of Haven Green. This would have been very cost-effective with a benefit : cost ratio of 5.9 : 1. Even Halcrow worked out that there "might be some local opposition" to this idea. TfL and Ealing Council then modified the arrangement to move it to the eastern side of Haven Green. It was in this form that it appeared in planning application [P/2008/4025](#). This planning application was rejected by Ealing Council's planning committee on the same night as the Arcadia one was approved.

The scheme put forward in this planning application is shown in the following diagram:-



Advantages

- Much less cost than other new arrangements at around £4M.
- Shorter distance to walk for those changing buses.
- Widened pavement to increase passenger waiting space.
- Increased cycle parking facilities (although not covered) and cycle lanes.
- Taxi pick up beside the station.
- Rest room and toilet facilities for taxi and bus drivers (although obtrusive design of them on the submitted plan).

Disadvantages

- No extra bus stop/stand capacity and no capability of increasing this without slabbing over a bit more of Haven Green.
- No improvement in walking distances for those going to and from the buses to the station.
- Small net loss of green space on Haven Green, although the technicalities of measuring common land show the area of this as unchanged.
- Some loss of mature trees, although replacement ones to be provided.
- Limited extra cover for passengers and no real chance of improving this without adverse visual impact.
- Unightly massing of buses next to an obvious area for substantial pavement cafes.
- Can't be started until Crossrail work has been completed, as part of it covers a Crossrail construction site.

Over the Network Rail tracks on the north of the Arcadia site

This is option 9b in the Halcrow report. The design would span the railway tracks in much the same way as the proposed Arcadia development would do. There is an [SEC version](#) of this design (developed separately, but believed to be very similar).

Advantages

- Proper modern bus station with retail units etc.
- Good interchange between buses.
- Slightly shorter bus routes, as there would be no need to circumnavigate Haven Green.
- Most convenient location for those passengers not using the station, as it is nearer to other parts of the town centre.
- There are some expansion possibilities, basically by putting bus stops/stands back on the eastern side of Haven Green.

Disadvantages

- The scheme has a high initial cost. Halcrow's estimate was £40.3M. Much of this cost comes from bridging over the live railway lines.
- It has a benefit : cost ratio of 1.4 : 1, just failing the normal requirement of a 1.5 : 1 ratio required for a transport development paid for by public funds. It does, however, exceed the absolute minimum ration of 1.1 : 1. The benefit : cost ratios are from the Halcrow report for the "with Crossrail, no tram, bus growth" scenario, as this is now the one that is most appropriate. Any development above the bus station that shared the cost of rafting over the rail lines would substantially improve the benefit : cost ratio.
- It is unlikely to enhance the view from Haven Green and would block any hopes of increased pedestrian permeability between Haven Green and the rest of the Arcadia site.
- It wouldn't be possible to proceed with this scheme if the proposed Arcadia development was both approved and built.

Over the underground platforms

A number of variants of this were considered in option 5 in the Halcrow report. They included one over just the District Line platforms, one extending to the Central Line ones and another that had the proposed tram cross the southern part of Haven Green and exit via a bridge over the Network Rail lines to re-join Uxbridge Road by Carmelita House. Both entry and exit for buses appeared to be from an entrance just north of the station.

The Halcrow design appears to have had the bus station at about street level. This conflicted with the Crossrail design for the station which has a pedestrian overbridge extending for its whole width. The favoured solution for this was to cut the overbridge short at its northern end and access the northern District Line platform round the back of the buffers to platforms 8 & 9.

The [SEC favoured design](#) for this option has the bus station covering both the District and Central Line platforms, with a bridge crossing the Network Rail lines and joining Uxbridge Road by Carmelita House. Bus entry and exit would be both at the north of the station and at the (Carmelita House) Uxbridge Road junction.

Advantages

- Proper modern bus station with retail units etc.

- Best possible interchange arrangements with rail, all under cover with short walking distances and no roads to cross.
- Good interchange between buses.
- Improves the appearance of Haven Green as stationary buses would be out of sight.
- Best scope for expansion, as further bus stops/stands could be added eastwards over the underground tracks.

Disadvantages

- This scheme has the highest initial cost. Halcrow's estimates were around £48M for most of the variants considered. Much of this cost comes from bridging over the live railway lines. There was a further £25M for taking the tram across the site.
- The basic variants considered by Halcrow had a benefit : cost ratio of 0.5 : 1, failing the normal requirement of a 1.5 : 1 ratio required for a transport development paid for by public funds. This was for the "with Crossrail, no tram, bus growth" scenario. These figures would suggest that a major development above the station would be needed to share the cost of rafting over the railway lines.
- Additional walking distance for those passengers not using the rail station.

North or south of the station

These possibilities haven't been much explored. However, it would clearly be possible to fit a bus station on land either to the north or south of the station. These options would have the advantage of saving the high construction costs involved in spanning a live railway. Both sites are in multiple ownership and may have to be assembled using Compulsory Purchase Orders, as has been done with the Dickens Yard development.

The option to the north would involve taking the squash courts and the back gardens of quite a number of houses in Madeley Road. It would probably be fiercely resisted by the residents of Madeley Road and it would also be furthest from the town centre.

The option to the south would open up the possibility of incorporating buses (207 etc.) that travel along the Uxbridge Road. The design would have to consider how to deal with the listed NatWest Bank and the front part of the buildings facing The Mall. The value of the current shops, restaurants, bars and clubs on the site may make it expensive to acquire, although there is great potential for replacement commercial property in a wider re-development of the site.

Land ownership in the relevant areas

This affects the ease of agreeing plans and the potential need for Compulsory Purchase Orders. The situation is believed to be as follows:-

- The whole of Haven Green is in the ownership of Ealing Council.
- The situation with the station is less clear. An enquiry of the Land Registry a few years ago showed that at least much of the land isn't registered. The District Line part of the station and its frontage onto Haven Green are owned by Transport for London, as are the Central Line tracks and platforms. The mainline parts and the areas leading to Central Line and District Line platforms, Villiers House and the shops above the station appear to be owned by Network Rail. Villiers House (and possibly the shops and forecourt) seem to be leased to Glenkerrin.

- The old BBC car park (north of the railway cutting) is believed to be owned by Network Rail and leased to Glenkerrin.
- The railway cutting will be owned by Network Rail.
- Most of the Arcadia site is owned by Glenkerrin.

What if Crossrail doesn't go ahead as planned?

The current economic situation creates uncertainty about all major investments such as Crossrail. The benefits of Crossrail do look fairly sound as a study a few years ago concluded that the scheme really should have gone ahead when it was first put before Parliament in the 1980s. More recently, the benefit to the UK economy has been estimated as at least £36 billion. This is for a scheme costing £15.9 billion. However, Crossrail could still be cancelled, curtailed in scope or simply delayed. The implications of these possibilities are discussed below.

Scheme delayed

This could provide additional time to sort out a better comprehensive development of the whole area around the station. It would, of course, delay the benefits that even a basic station rebuild would provide.

Scheme reduced in scope

This could take many different forms. The most likely would be an attempt to cut out expensive elements that didn't produce so much early benefit. This may not affect Ealing as the really expensive parts will be the tunnelling and stations in central London. However, it is not clear how much could really be de-scoped without affecting the fundamentals of the scheme.

Scheme cancelled

This would have a wider affect on Ealing, especially as some developers (and others) have been banking on it coming. It may be possible to salvage some improvements to the station, perhaps using powers from the Crossrail Act. However, the Crossrail design for a new station could not remain unaltered, as the main passenger flows would still be to the Central Line platforms rather than to the Crossrail ones.

Planning for the new station and transport interchange

Nothing like enough detailed planning has yet been done for this. The passenger number forecasts are still very flaky and there has been little consideration of how any extra passengers will get to and from the station.

A credible forecast for passenger numbers in future years needs to be established, perhaps including different scenarios and confidence limits. It needs to include a clear understanding of where the passengers will start their journeys, which modes of transport they will use, and what proportion of passengers will wish to change mode of transport at Ealing Broadway.

A comprehensive assessment needs to be made of the transport demands around the station post-Crossrail, including pedestrians, cyclists, taxis, buses, car drop-off points and vehicular traffic flows. It needs to estimate the number of people who will simply go to and from the various facilities in the centre of Ealing (shops, offices, bar, colleges, bus station, railway station etc.) rather than just use Ealing Broadway as a transport interchange.

Ealing Council and Network Rail should resolve any future need for additional tracks at Ealing Broadway, such as a 5th track for a link to Greenford or additional tracks for future west coast main line expansion. These could have a significant impact on the design of the station.

There are then huge opportunities to work out a scheme, or set of options, for the comprehensive re-development of the station site, plus any changes in the road system, footpaths, bus arrangements etc. needed to make the whole lot work well for all those who will use the town centre and transport facilities. The obvious starting point is the current UDP requirement that the site should be considered for development which maximises its potential. Its transport links make it a prime site and it has big commercial opportunities for offices, shops and possibly residential.

Ealing Council are best placed to take the lead in bringing the various parties (TfL, Network Rail, Crossrail, developers) together to develop a scheme that everyone can be truly proud of. The regeneration team could work with the key players to further explore the options.

As part of this, there are a number of specific aspects that need to be considered in the station part of the design:-

- The possibility of having a passenger overbridge at the eastern end of the station, to improve normal flows between Crossrail and underground trains and to cope with any blockades of Paddington.
- The provision of substantial covered cycle parking space within the station development.
- The provision of staff facilities (rest rooms and toilets) for bus and taxi drivers within the station complex.
- The provision of convenience shops within the station itself.
- Assessment of the need for additional pedestrian routes to the ticket hall, especially to relieve any pinch points on the pavements to the south of the station. Direct access to The Mall would be of considerable benefit.
- Assessment of the capacity of the stairs and escalators to ensure they can cope with new predictions of maximum passenger flows.
- Assessment of the capacity of the ticket gates to cope with new predicted passenger flows.
- An architecturally pleasing design to the front of the station that enhances the Conservation Area.

Funding of the interchange

Major transport infrastructure is normally funded from a variety of sources. The relatively local Petts Hill bridge was funded by Harrow and Ealing Councils, Transport for London and Network Rail. Crossrail itself is being funded by a wide variety of sources and indeed the funding did not get agreed until near the end of the passage of the Crossrail Bill.

For the Ealing Broadway Interchange, it is far too early to start the haggling of just who pays how much towards its costs. This would anyway be very much influenced by what commercial developments are included in the overall scheme. One of the things to remember is that the business case for Crossrail will be reduced if more people can't get to and from the new station.

The priority for now must be to establish the size and location of the key components and to develop potential designs.

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